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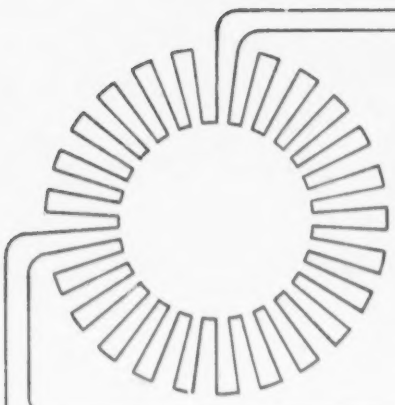

Center for Human Resource Research

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ABSTRACT

Female labor force trends are now important considerations in the formulation of government employment programs and labor force projections. However, in both of these areas little attention has been directed at the impact of changing sex-role attitudes on women's labor market behavior. In addition, while cross-sectional studies demonstrate a persistent correlation between sex-role attitudes and employment, the temporal interplay between changing attitudes and employment behavior has not been explored. This study utilizes data from the National Longitudinal Surveys of Labor Market Experience of Young and Mature Women to examine the short-run effects of nontraditional sex-role ideologies on wives' employment and the consequences of such employment for further changes in sex-role attitudes.

Our analyses demonstrate a small but significant effect of nontraditional attitudes on white wives' extent of employment experience and a substantially larger effect of market participation on later attitudes. However, due to subcultural differences, nontraditionality has no impact on the employment of black married women and employment has little effect on their subsequent attitudes. Based on these findings we conclude that among white wives, early nontraditional attitudes trigger a spiraling pattern whereby such attitudes influence labor force behavior which has longer-run effects on subsequent attitudes and labor market participation.

We conclude our discussion by considering the implications of these findings for both short-run and longer-run government employment programs and the development of more refined female labor force projections.

SEX-ROLE ATTITUDES AND EMPLOYMENT AMONG WOMEN: A DYNAMIC MODEL OF CHANGE AND CONTINUITY

BACKGROUND

Studies of female labor market patterns have long claimed an important place in descriptions of the changing U.S. labor force and in more general sociological and economic research. Recently these trends have also emerged as considerations in the development of government employment policy. Specifically, current discussions of programs designed to reduce unemployment acknowledge the importance of women's increasing presence in the labor force for the formulation of job programs (Shabekoff, 1977). Furthermore, the potential impact of changes in women's work patterns is not limited to short-run employment programs. Labor force projections by the U.S. Department of Labor (1976) and others (Waite, 1977) also recognize that work propensities of women of all ages and family stages have increased dramatically since World War II (Oppenheimer, 1970; Nye, 1974), and these trends form the basis of predicted labor force figures. As these projections have become increasingly sophisticated, some labor force analyses (U.S. Department of Labor, 1976) have gone beyond extrapolation from previous employment trends and have incorporated various assumptions concerning the future course of U.S. fertility. However, other potentially important changes in women's lives have been given relatively little attention in the development of employment policy and labor force projections. Most important among them is the well-documented change in women's sex-role attitudes over the last decade (Parelius, 1975; Mason et al., 1976).[1]

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[1] To our knowledge, only one very recent set of U.S. female labor force projections includes extrapolations from data on women's employment-related attitudes (Waite, 1977).

Increasing employment rates, especially among mothers of young children (Nye, 1974), certainly represent a departure from model twentieth century patterns of family life, one that may reflect changing attitudes (Dowdall, 1974; Waite and Stolzenberg, 1976; Kim et al., 1973). Thus, the potential impact of sex-role attitudes on female labor force participation is a crucial issue both for the development of government policy aimed at accomodating women's increasing desire for employment and for the estimation of more accurate labor force projections.

While some earlier researchers dismissed the need to incorporate attitudes in explanations of changing female labor force behavior (Bowen and Finegan, 1969), there is now substantial evidence that sex-role attitudes -- particularly attitudes towards women's employment -- and actual labor force behavior are linked. Experience with market work shapes women's tastes for alternatives to familial roles (Turchi, 1975; Scanzoni, 1975); consequently, such experience should produce more favorable attitudes toward nontraditional life-styles. Conversely, women with nontraditional orientations are more likely to anticipate future roles that include employment (Waite and Stolzenberg, 1976), to be employed, and to exhibit greater continuity of labor force participation (Kim et al., 1973; Spitze and Spaeth, 1976). These effects of attitudes on labor force behavior hold despite the fact that most young women still intend to withdraw from employment while their children are young (Macke and Morgan, 1978), a pattern followed by the majority of married women (Sweet, 1973; Suter and Miller, 1973).

Despite evidence of the correlation between nontraditional attitudes and greater employment propensities, the predominantly cross-sectional

nature of this research has produced little understanding of the over-time dynamics of these relationships. Even those studies based on longitudinal data (Spitze and Spaeth, 1976; Waite, 1977) have not considered the potential temporal feedbacks between sex-role attitudes and labor force behavior. Our view is that prior attitudes affect subsequent employment and that work experience shapes later sex-role attitudes. Consequently, early nontraditional sex-role ideologies may operate to trigger a spiraling pattern, whereby such attitudes influence early labor force behavior (as well as associated marital and childbearing decisions) which in turn further alters later attitudes and behavior. This feedback relationship may exist not only early in life, but may continue to affect women's employment decisions throughout their labor force careers. Consequently, even a relatively small short-run effect of early attitudes on labor force participation may be magnified through a long-term pattern of attitudinal changes inducing a greater desire for market work.[2] Under these conditions, the accelerating attitude shifts observed by Mason et al. (1976) may be partly a function of increased propensities toward working over the past decade. From the perspective of policy development, evidence supporting a spiraling effect of sex-role attitudes on labor market behavior would suggest the importance of incorporating attitudinal measures in the formulation and implementation of employment programs and the refinement of labor force projections. A

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[2] Even given such a feedback relationship between attitudes and employment propensities, there is a likely ceiling on women's employment rates resulting from childbearing, less than optimal childcare arrangements, and the low wages some categories of women face that fail to compensate for the costs of childcare.

further implication of such findings would be the need to modify labor force projections for adolescents, socialized under conditions of changing sex-role norms, to include effects of unexpectedly large temporal shifts in employment-related attitudes.

Although younger women are most likely to support nontraditional life-styles (Parelius, 1975; Welch, 1975), accurate forecasts of the impact of sex-role norms on work participation must consider older women as well. These women also have shifted their attitudes (Mason et al., 1976) and so may be responding similarly to their ideologies concerning women's employment. In addition, given their relative freedom from childbearing responsibilities, they may be even more likely than younger women to display labor force patterns that conform to their sex-role beliefs. If so, participation rates may increase more rapidly than anticipated as succesively less traditional women enter their middle years and experience an accelerated impact of attitudes on employment.

MODEL

Based on these observations, the analyses presented below test the hypothesis that prior sex-role attitudes influence subsequent labor force behavior which, in turn, affects later sex-role attitudes. This argument is presented schematically in Figure 1. In this model, the dashed arrows represent controls for the temporal consistency of attitudes and employment, which might produce inflated estimates for the effects of substantive interest (Bohrnstedt, 1969).

We examine this series of relationships separately for younger and older women. By exploring possible differences in processes for various

segments of the female population, we can more readily anticipate work patterns at different stages of the life cycle, suggesting at least short-run policy applications for the two groups (i.e., Are younger or older women more likely to experience rapidly increasing labor force entry? Should current labor force projections incorporate attitudinal measures only for one or the other of these two categories of women?).

Racial Differences

Blacks have long espoused a more work-oriented, instrumental role for wives (Axelson, 1970; Dietrich, 1975; Scanzoni, 1975). In addition, the lower current and permanent income of black husbands (Sweet, 1973) and the greater probabilities of future marital disruption for black couples (Udry, 1966) more often necessitate wives' employment. Consequently, the propriety of wives' (or mothers') employment is often irrelevant to employment decisions (Farley and Hermalin, 1972; Hudis, 1977), even for those blacks who strongly disapprove of maternal employment. The subcultural experiences should increase employment rates among black wives, irrespective of their present economic situations or sex-role traditionality. Thus, the relationships described above between working and nontraditionality probably more accurately reflect patterns among whites than blacks, particularly for the impact of employment-related attitudes on the propensity to work. Therefore, we will examine these issues separately for black and white women.

DATA AND METHODS

Sample

The data are from the two cohorts of female respondents included in the National Longitudinal Surveys (NLS). The survey responses we use were collected for the younger women (aged 14 to 24 in 1968) in 1968, 1969, 1970, 1971, and 1972, and for the older women (aged 30 to 44 in 1967) in 1967, 1968, 1969, 1971, and 1972.

We did not include all available cases in our analyses for the following reasons. The impact of sex-role traditionality is relevant only for married women, because unmarried women often have little choice but to work, regardless of their attitudes. In addition, given the emphasis on fertility patterns in projections of the female labor force (U.S. Department of Labor, 1976), as well as prior evidence concerning the influence on employment of husband's attitudes (Centers et al., 1971; Duncan et al., 1973), we wish to examine the relative importance of wives' sex-role attitudes, the attitudes of their husbands, and presence of children as determinants of women's labor force behavior. Thus, our analysis is restricted to those women from each cohort who were married throughout the time period observed (1967 to 1972 for older women and 1968 to 1972 for younger women).[3] Also, we included only those younger women who were at least 18 years of age in 1968. Based on these selection criteria, the younger sample used for our analysis includes 116 blacks and 630 whites, while there are 482 blacks and 2280 whites in the older sample.

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[3] We also excluded from the sample women who changed their marital status between the initial and final survey dates because of the effects of such status changes on employment probabilities.

Variables

The measure of sex-role nontraditionality in 1972, our most complex variable, is a scale produced by summing responses to seven items.[4] Inclusion of items was based on an oblique factor analysis of nine possible items, which produced significant loadings according to Child's (1971) rule of thumb for the items included. For all attitude measures, items were recoded so that high values represent nontraditional responses.

The measure of initial sex-role nontraditionality for the older women (1967) and the younger women (1968) is simply a summation of three items.[5]

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[4] Response categories ranging from strongly agree to strongly disagree were provided for the following statements:

(1) Modern conveniences permit a wife to work without neglecting her family.
(2) A woman's place is in the home, not in the office or shop.
(3) A job provides a wife with interesting outside contacts.
(4) A wife who carries out her full family responsibilities doesn't have time for outside employment.
(5) The employment of wives leads to more juvenile delinquency.
(6) Working wives help to raise the general standard of living.
(7) Working wives lose interest in their homes and families.

Reliabilities (Cronbach's alpha) for this scale are: whites--.858; blacks--.647.

[5] The initial sex-role traditionality scale for both cohorts contained the the following stem and statements: "Now, I'd like your opinion about women working. People have different ideas about whether married women whould work. Here are three statements about a married woman with children between the ages of 6 and 12. In each case how do you feel about such a woman taking a full-time job outside the home: it is definitely all right, probably all right, probably not all right, definitely not all right?"

(1) if it is absolutely necessary to make ends meet
(2) if she wants to work and her husband agrees
(3) if she wants to work, even if her husband does not particularly like the idea

Respondents who were undecided were given a median score of "3" on each item. Reliabilities (Cronbach's alpha) for this scale are: whites--.535; blacks--.545.

To include the maximum number of respondents, missing responses to all sex-role items were recoded to the mean for all cases before summing. We expect bias in this regard to be minimal because relatively small proportions of the cases were missing on any one item (see Kmenta, 1971, for a discussion).

Because the initial three-item measure of traditionality was also available in 1972, we could have used identical measures for earlier and later years. However, we employed the alternative scale (not available for the earlier year) because it is a theoretically more adequate measure of nontraditionality.[6] Furthermore, in order to obtain accurate estimates of the impact of work experience on later attitudes (see Figure 1), we must control for the effects of previous attitudes. By using the same (less desirable) indicator of attitudes, measurement error would increase the likelihood of correlated errors between the two measures of traditionality, biasing all of the other estimates.

Extent of employment varies from "0" to "3," depending on how many of the relevant years a respondent was in the labor force. For the older women these years were 1968, 1970, and 1971; for the younger women they were 1969, 1970, and 1971.

Control variables To assess the impact of initial nontraditionality on extent of employment, we must control for the over-time consistency of labor force participation, which is related to traditionality and, consequently, may produce a spuriously high correlation. Thus, our model

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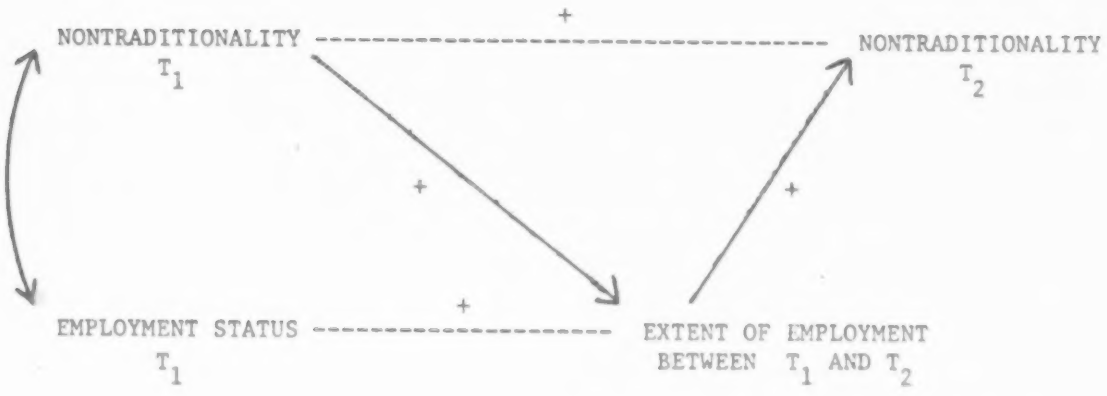
[6] In an analysis (not reported here) using the three-item scale for 1972 nontraditionality, the direct effects of substantive interest were substantially similar to those reported for the seven- item scale.

FIGURE 1. OVER-TIME RELATIONSHIP BETWEEN SEX-ROLE ATTITUDES (NONTRADITIONALITY) AND EMPLOYMENT BEHAVIOR.



controls for the effects of participation in the initial year (1967 for the older women, 1968 for the younger women). For both groups, initial employment is measured by a dummy variable scored "1" if the woman was in the labor force and "0" if she was not.

We also control for other variables related to both attitudes and employment that may produce spurious relationships. The inclusion of such additional controls is especially warranted because, when controlling for the consistency of attitudes and employment, by including the impact of previous measures on later measures, the possibility of correlated errors is especially likely (Hannan and Young, 1977). Thus, the model to be estimated must include those variables that might produce spuriously high consistency coefficients between the repeated measures. The following are additional controls included in the analyses.

The woman's perception of her husband's attitude toward her working (if she is employed) or toward her starting work (if she is not currently employed) is measured by a single item to which five answer choices were provided. They range from strongly supportive to strongly opposed. For both cohorts these items were measured in the initial year. We justify including husband's attitude as a control variable on two grounds. First, some earlier research based on the NLS data (Kim and Murphy, 1973) indicates a significant effect of husband's attitude for the labor force behavior of white wives. Second, the modified cross-lagged model used in this study, which includes controls for wife's initial employment, eliminates the problem of ambiguous causal inferences identified by some analysts (Waite, 1977).

Husband's income represents the effects of other available family income on wife's employment behavior. Consequently, this variable measures economic need as an influence on the extent of wife's work. Number of children in the household was measured differently for the two cohorts. The number of children at home in 1967 was used for the older women, because women in this cohort had largely completed their childbearing at the start of the surveys (1967). In contrast, many of the younger women were at or approaching the childbearing stage of the life cycle. Therefore, we controlled for number of children in 1968 when estimating effects on extent of employment bewteen 1969 and 1971, but used number of children at home in 1972 as a control when estimating sex-role traditionality in 1972.

A woman's work preparation is another important determinant of both employment behavior and sex-role attitudes. Such preparation taps both human capital influences on employment probabilities and variation in tastes for market work (Bowen and Finegan, 1969). Education is the number of years of regular schooling completed at the start of the surveys. Job training ranges from "0" to "5," depending on how many of several varieties of training (including types of on-the-job, vocational, and company) a woman received. Although it would have been preferable to measure the extent of each training type, we were unable to do so because of a lack of consistency in the coding of these variables. Socialization experiences, such as mother's work history, may also affect a woman's work behavior (Almquist and Angrist, 1970). This measure is a dummy variable, scored "1" if the woman's mother was employed when the daughter was 15

years old, and "0" if she was not. Age is included as a control for younger women, due to its potential effects on employment probabilities. The unemployment rate and demand for female labor in the local labor market were controlled in initial analyses. However, because they failed to demonstrate significant effects for either cohort, they were deleted from the equations presented below.

Procedures

All analyses use standard ordinary least-squares regression techniques. Our strategy was to estimate the impact of initial (1967 or 1968) attitudes on extent of employment in the following interval, controlling for work status in the initial year and all other independent variables. We then extimated the effects of extent of employment on 1972 attitudes, controlling for initial attitudes and work status in addition to the other controls. This model is similar to the cross-lagged approach (see Heiss, 1970; Snyder and Hudis, 1976), where stability coefficients (i.e., the effect of X_{t_1} on X_{t_2}) are estimated in addition to the cross-lagged coefficients (i.e., the effect of X_{t_1} on Y_{t_2}). However we are not substantively interested in the stability coefficients and, instead, are more concerned with controlling these consistency effects when estimating the cross-lagged coefficients of direct concern.

FINDINGS

The means and standard deviations presented in Table 1 demonstrate a number of anticipated differences between black and white women and at the two life-cycle states. First, black women are more nontraditional (as are

TABLE 1. MEANS AND STANDARD DEVIATIONS OF VARIABLES IN ANALYSES OF SEX-ROLE NONTRADITIONALITY AND EXTENT OF EMPLOYMENT, BY COHORT AND RACE.

	Older Women				Younger Women			
	Whites		Blacks		Whites		Blacks	
Variable	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
Initial work status	.431	.495	.643	.480	.475	.500	.509	.502
Extent of employment	1.397	1.297	1.896	1.216	1.224	1.210	1.629	1.198
Initial sex-role nontraditionality	9.898	2.458	10.714	2.492	9.605	2.526	10.612	2.308
1972 Sex-role nontraditionality	16.969	4.898	17.071	4.054	17.053	4.141	18.144	3.928
Husband's attitude	2.956	1.582	3.805	1.447	2.702	1.012	3.701	1.296
Husband's income	8250	5758	4933	3302	5350	2862	3518	2054
Number of children - 1967	2.729	1.711	3.537	2.635				
Number of children - 1968					1.003	.963	1.638	1.264
Number of children - 1972					1.978	1.012	2.785	1.597
Education	11.859	2.315	10.390	3.031	11.778	1.854	10.176	2.122
Job training	1.324	.977	.614	.884	.475	.726	.457	.774
Mother's work history	.314	.464	.566	.496	.351	.478	.560	1.809
Age					21.822	1.805	21.302	1.809
N	2280		482		630		116	

their husbands); they are also more likely than white women to work and they more frequently had working mothers. Black women have lower levels of educational attainment, larger numbers of children and husbands with lower incomes. These differences support racial variations observed in a variety of previous studies (Farley and Hermalin, 1972; Sweet, 1973; Hudis, 1977).

Differences between the two cohorts of women with respect to their own and their husbands' attitudes are extremely small, although in the initial year an unexpected tendency exists for older women and their husbands to be less traditional than their younger counterparts. However, there is a tendency for younger women to be less traditional in 1972, a pattern of differences that conforms with previous research (Parelius, 1975; Welch, 1975). Other expected differences between the two cohorts exist; older women have husbands with higher incomes, and they also have larger numbers of children (due to both their older age and secular fertility trends), and a greater variety of job-training experiences.

In testing the model depicted in Figure 1, we are especially interested in the effects of initial nontraditionality on subsequent continuity of employment and such employment experience on 1972 nontraditionality. The results for the younger women presented in Table 2 support our expectation of temporal feedbacks, but only for whites.

For whites, nontraditionality increases labor force participation, and this work experience enhances nontraditional attitudes at a later point.[7]

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[7] The strong effect of extent of employment on 1972 attitudes remained even when work status in 1972 (in or out of the labor force) was controlled (for both younger and older women).

TABLE 2. EQUATIONS PREDICTING EXTENT OF EMPLOYMENT, 1969-1971 AND SEX-ROLE NONTRADITIONALITY, 1972, BY RACE FOR YOUNGER WOMEN.

	Whites				Blacks			
Dependent Variable:	Extent of Employment 1969-1971		Nontradi-tionality 1972		Extent of Employment 1969-1971		Nontradi-tionality 1972	
Independent Variable	b	Beta	b	Beta	b	Beta	b	Beta
Work status, 1968	.788[a]	.325	-.668	-.070	.920[a]	.386	-.143	-.018
Nontraditionality, 1968	.029[a]	.061	.233[a]	.124	-.011	-.021	.191	.112
Extent of employment, '69-'71			1.113[a]	.284			.189	.058
Husband's attitude	.152[a]	.190	.156	.050	.054	.056	.238	.077
Husband's income[b]	-.003[a]	-.067	.009[a]	.076	-.006	-.107	.007	.046
Number of children	-.080	-.063	-.270	-.058	-.186[a]	-.191	-.166	-.068
Education	.007	.010	.312[a]	.122	.054	.089	.159	.080
Job training	.202[a]	.121	.368	.056	.236[a]	.157	-.195	-.040
Mother's work history	-.065	-.026	.192	.019	-.075	-.031	-1.410[a]	-.179
Age	-.012	-.018	.124	.047	.117[a]	.177	-.233[a]	-.107
R^2	.294		.151		.284		.082	
N	630				116			

[a]Coefficient at least twice its standard error.

[b]Measured in hundreds of dollars.

However, while statistically significant, the effect of young women's own attitudes on labor market behavior is relatively small and far less important than the impact of their husbands' attitudes. While initial attitudes do shape employment behavior to some degree, prior labor force experience appears to be a more salient influence among young white women.[8] For both black and white women, the effect of initial work status on extent of employment indicates that those who worked in the past are very likely to work in the present, regardless of their attitudes. These findings for young white females suggest the spiraling effect of nontraditional attitudes and employment behavior discussed earlier despite the observation that, over the short run, attitudes have only a moderate effect on immediate work continuity. In contrast, early work participation operates to establish a pattern of continued employment for young black females irrespective of their attitudes toward the acceptability of working.

Control variables included in the analyses have scattered effects on the two dependent variables for the two racial groups. First, as anticipated, husbands' attitudes are a salient influence on the employment behavior of young white women, while these attitudes have little effect for blacks. This difference supports earlier arguments that subcultural differences mandate employment for most black women regardless of familial circumstances that often curtail employment for whites. Second, the effects of education

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[8] This relatively weak effect of attitudes on employment remained even when the analysis included only married women with children, supposedly those facing the severest family pressures (and, perhaps, more susceptible to variations in attitudes).

and job training are stronger for blacks, paralleling previous findings for earnings attainment (Treiman and Terrell, 1975; Hudis, 1977) and suggesting that the familial and economic uncertainties black women face lead them to greater utilization of their training than is the case among white women. Finally, the impact of children in the household has a negative effect on employment only among blacks. This finding is contrary to earlier observations (Sweet, 1973) that white women's employment behavior is more strongly influenced by the constraints of childrearing and other family responsibilities. These surprising results may be due to the more rapid family formation (and ultimately larger family size) of black women (see Table 1), increasing the variation, and so the impact, of number of children in 1968.

The results for older women in Table 3 indicate a pattern largely similar to that for the younger cohort. Attitudes have a significant but relatively weak effect on short-run employment (for whites only), and work experience further increases levels of nontraditionality, this time for both racial groups. Again, husbands' attitudes have a more powerful influence on the employment behavior of wives than does a woman's own orientation -- for both black and white women -- although the relative importance of husband's attitudes (compared to one's own) is less for older than younger females.

A comparison across cohorts of the unstandardized regression coefficients shows greater consistency in work behavior for the older women, probably the result of reduced childrearing pressures and other work interruptions. Sex-role attitudes are also more consistent over time, although a significant stability effect exists only for whites. The control

TABLE 3. EQUATIONS PREDICTING EXTENT OF EMPLOYMENT, 1968-1971 AND SEX-ROLE NONTRADITIONALITY, 1972, BY RACE FOR OLDER WOMEN.

Dependent Variables:	Whites				Blacks			
	Extent of Employment 1968-1971		Nontraditionality 1972		Extent of Employment 1968-1971		Nontraditionality 1972	
Independent Variables	b	Beta	b	Beta	b	Beta	b	Beta
Work status, 1967	1.611[a]	.615	-.144	-.015	1.356[a]	.535	.487	.058
Nontraditionality, 1967	.029[a]	.054	.513[a]	.258	.002	.004	.048	.029
Extent of employment, '68-'71			1.172[a]	.310			.954[a]	.286
Husband's attitude	.090[a]	.110	.036	.011	.068[a]	.081	-.171	-.061
Husband's income[b]	-.006[a]	.072	.003	.012	.000	.010	-.000	-.002
Number of children	-.017	-.023	-.074	-.026	-.018	-.039	-.053	-.035
Education	.032[a]	.056	.237[a]	.112	.065[a]	.162	.087	.073
Job training	.030	.023	.263[a]	.052	.063	.046	.415[a]	.091
Mother's work history	.043	.015	.027	.003	.098	.040	.049	.006
R^2	.532		.241		.397		.140	
N	2280				482			

[a]Coefficient at least twice its standard error.

[b]Measured in hundreds of dollars.

variables have scattered effects for both racial groups. Two of these effects are of particular interest. Husband's income negatively influences extent of employment only among whites, continuing a pattern observed for the younger women. In addition, children in the household have little influence on continuity of employment for either group of older women, reflecting the completion of childbearing and reduction in childcare responsibilities for black women in this cohort (children were a salient influence for younger black wives but not for their white counterparts).

DISCUSSION

These findings have important implications for projections of women's labor force participation rates, including the relevance of changing sex-role attitudes concerning women's desire for employment. Our analyses suggest that among white women, at both early and later stages of the life cycle, labor force participation will continue its upward spiral. Nontraditional attitudes toward women's work increase the extent of work participation, and the experience of labor force involvement further increases a woman's nontraditionality. Consequently, we conclude that changing sex-role norms contributed to the growth in women's labor force participation over this period, subsequently increasing levels of nontraditionality.

Based on our model we can also make the assumption that sex-role attitudes in 1972 (which were less traditional than those in the earlier period) increased the likelihood and extent of employment for younger and older white wives. Extrapolating from the observed cyclical process, increases in labor market work among white wives should continue in future

years. Furthermore, if nontraditionality increased more rapidly subsequent to 1972 than during the previous period (as suggested by Mason et al., 1976), the resulting growth in desire for employment also would have accelerated. While the impact of attitudes on employment -- in the short run -- is relatively weak, the size of this effect must be assessed in its longer-run context. Given the increasing tendency for women to perceive all dimensions of traditionality as related (Mason, et al., 1976), they are more likely to demonstrate behavior that conforms to their attitudes in a variety of life situations. Consequently, the longer-run influence of employment-related attitudes may have an even more profound impact on white women's labor force patterns than our model for the early 1970s suggests.

Our analyses indicate continued racial differences in the process determining female employment, despite the gains young blacks have made in employment opportunities and income (Farley and Hermalin, 1972). These findings support earlier arguments concerning subcultural differences in the appropriateness of working for black and white married women. Thus, accurate labor force projections will require separate estimations by race. According to our findings, the employment behavior of blacks will not be affected by recent attitudinal changes.

One impressive racial similarity exists: the striking stability of work behavior. This influence of earlier participation on later extent of employment has been recognized in previous studies (Mott, 1972; Sweet and Lowe, 1974) and should be emphasized in the context of currently low fertility rates and particularly in the context of recent evidence of delayed childbearing among women now entering their thirties. It has long

been argued that employment and childbearing have reciprocal negative effects on one another. To the extent that employment experience (with its attendant human capital accumulation) raises the opportunity costs of children, work experience reduces family size. In addition, early childbearing produces conflicts between work and family responsibilities that are most often resolved in favor of family-related commitments (Coser and Rikoff, 1971). Early family formation also limits young women's opportunities to develop tastes for alternative lifestyles. However, among young women maturing under conditions of changing sex0role norms, marriage and/or childbearing may be delayed, thereby increasing opportunities for work experience and the growth of preferences for roles that include relatively continuous employment. As a result, the higher levels of early labor force participation among today's young women may drastically alter their continued desire for employment later in life. When coupled with the exceptionally low fertility of these young women, their desire for work during their middle years may hardly resemble levels currently displayed by women past childbearing age.

Several additional observations from our analyses also require discussion. First, previous studies demonstrate the difficulties involved in determining the direction of causal influence between a husband's attitudes toward his wife's employment and the extent of the wife's work (Waite, 1977). Through the use of the NLS data and a modified cross-lagged research design, we have shown that wives' perceptions of their husbands' attitudes dc influence future employment among white women in both cohorts and among older black females. Among whites, this largely

unexplored determinant of working has an even stronger impact than the woman's own sex-role orientation. Thus, to anticipate adequately changes in female labor force participation, attitudes and attitude change among men must be examined.

We did not observe that older women's employment patterns were more strongly influenced by their attitudes than among young women. Consequently, labor force participation rates among this cohort of older women whould not increase disjunctively because of an increased impact of attitudes on desired employment. However, based on the effects of both attitudes and higher levels of early employment among younger women, later cohorts of women reaching the middle years may display greater employment propensities.

In summary, recent declines in sex-role traditionality among American women are likely to accelerate the desire for employment among whites, despite the relatively weak short-run influence of employment-related attitudes on immediately subsequent work behavior. We argue for such effects on the basis of evidence that attitudes and behavior interact to produce a long-term spiral of nontraditional orientations and increasing employment. For the brief period under investigation, this feedback relationship exists among both young and older white wives. In contrast, among blacks, attitudinal changes appear to have little salience for the future employment of current adult cohorts. However, early labor force involvement has a strong influence on continued employment, and any changes in early market work for black adolescents soon entering the labor force will be important predictors of their future desire for work. Our findings

that education and job training are fairly strong positive influences on labor force participation among blacks suggests that programs aimed at providing such skills to minorities may be one such influence increasing both the long-term and short-term desire for work among black women. Finally, especially among whites, the attitudes of husbands towards women's involvement in the labor market need to be addressed in labor force analyses. Particularly given the currently undeveloped state of our knowledge of changes in men's attitudes, this is a priority for future research.

POLICY IMPLICATIONS

Our previous discussion focused on several findings of this research: the spiraling relationship between sex-role attitudes and women's employment behavior, differences in this relationship between black and white women, future employment patterns that may result from the interaction of attitudes and women's labor force patterns, and the importance of husbands' attitudes in modeling their wives' employment. Each of these conclusions has implications for the development of employment policy and the estimation of labor force projections.

First, to the extent that various groups of (white) women differ in their sex-role attitudes as well as their rate of change in such orientations, the desire for work will vary according to these attitudes. Consequently, the development of programs to stimulate employment opportunities should take account of the varying target populations of women that will be seeking work at differential rates. Those women with especially non-traditional orientations are likely to make the heaviest demands for future

inclusion in the labor force. These sectoral differences in desires for employment, as well as the over-all level of change in sex-role attitudes, should be important components of employment policies that seek to match available opportunities with the skills and desires of potential workers, and are consonant with improving the status of women and achieving affirmative action goals.

Second, we observed that among whites, the number of children at home has little influence on short-run employment behavior; however, the impact of husbands' attitudes was important. While fertility trends should not be abandoned as variables in labor force projections -- to the extent that delayed childbearing increases early labor force involvement, fertility rates will remain important -- we are suggesting that data on changing attitudes toward employment of both men and women should be collected also and applied to the development of projections.

Third, among black women, attitudes have little influence on employment behavior, but early employment experience is an important predictor of later market work. Consequently, governmental intervention to decrease teenage unemployment must recognize the potentially important spiral of desire for continued employment that may result from higher early labor force participation rates. This longer-term effect implies a need to go beyond the development of job opportunities for youth to programs with a greater career focus.

Fourth, we caution against the heavy reliance on projections based on post-World-War-II employment trends. To the extent that changing attitudes shape the desire for labor market work (and based on the accelerated change of these attitudes) existing projections may be grossly inaccurate,

especially for young women currently reaching adulthood. Similarly, even among older women, attitudes are an important component of the sex-role/employment spiral. Among women of all ages both attitudes and labor force experience have shifted over the last decade. We suspect that the life-cycle pattern of rapidly declining employment rates at older ages partly reflects the traditional attitudes of older women and their lack of occupational advancement due to minimal work experience. Consequently, we can not assume that the sharp drop-off in employment characteristic of women in the later years (over age 50) will necessarily continue as attitudes change and life-time work experience increases. Should their employment rates remain relatively high, they will provide competition with less-experienced workers (both male and female) seeking initial entry into the labor force. The decline in employment rates late in life has been an important source of occupational mobility and job opportunities for youth, one that may diminish in the future. The implications of a change in this life-cycle pattern for policies aimed at reducing youth unemployment may be a seriously underestimated problem in current policy formulation.

Finally, while we have made a strong case for the importance of sex-role attitudes as an influence on the long-term spiral of women's desire for employment, except for the NLS data little additional survey material exists for further tests of these findings. We urge the investment of resources for the collection of additional data in order that both policy development and labor force projections may accurately reflect the major attitudinal and behavioral changes currently under way in American society.

References

Almquist, E. and Angrist, S. 1970. Career salience and atypicality of occupational choice among college women. Journal of Marriage and the Family 32: 242-49.

Axelson, L. 1970. The working wife: differences in perception among Negro and white males. Journal of Marriage and the Family 32: 457-64.

Bohrnstedt, G. 1969. Observations on the measurement of change. In Sociological Methodology, E.F. Borgatta (ed.). San Francisco: Jossey-Bass.

Bowen, G. and Finegan, T. 1969. The economics of labor force participation. Princeton: Princeton University Press.

Centers, R.; Raven, H.; and Rodrigues, A. 1971. Conjugal power structure: a re-examination. American Sociological Review 36: 264-78.

Child, D. 1971. The essentials of factor analysis. New York: Holt, Rinehart and Winston.

Coser, L. and Rokoff, G. 1971. Women in the occupational world: social disruption and conflict. Social Problems 18: 535-54.

Dietrich, K. 1975. Myth of black matriarchy. Journal of Marriage and the Family 37: 367-74.

Dowdall, J.A. 1974. Structural and attitudinal factors associated with female labor force participation. Social Science Quarterly 55: 121-30.

Duncan, O.D.; Schuman, H; and Duncan, B. 1973. Social change in a metropolitan community. New York: Russell Sage.

Farley, R. and Hermalin, A. 1972. The 1960s: a decade of progress for blacks? Demography 9: 353-70.

Hannan, M.T. and Young, A.A. 1977. Estimation in panel models: results on pooling cross-sections and time series. In Sociological Methodology, David R. Heise (ed.). San Francisco: Jossey-Bass.

Heiss, D.R. 1970. Causal inference from panel data. In Sociological Methodology, E.F. Borgatta and G.W. Bohrnstedt (eds.). San Francisco: Jossey-Bass.

Hudis, P.M. 1977. Commitment to work and wages: earnings differences of black and white women. Sociology of Work and Occupations 4: 123-46.

Kim, S. and Murphy, J.A. 1973. "Changes in labor force and employment status." In Dual careers: a longitudinal study of labor market experiences of women. Vol. II. U.S. Department of Labor, Manpower Administration Monograph No. 21. Washington, D.C.: U.S. Government Printing Office.

Kim, S.; Roderick, R.D.; and Shea, J.R. 1973. Dual careers: a longitudinal study of labor market experiences of women. Vol. II. U.S. Department of Labor, Manpower Administration Monograph No. 21. Washington, D.C.: U.S. Government Printing Office.

Kmenta, J. 1971. Elements of econometrics. New York: Macmillan.

Macke, A. and Morgan, W.R. 1978. Mother's employment and daughter's work orientation: a test of alternative socialization processes for blacks and whites. Social Forces.

Mason, K.O.; Czajka, J.L.; and Arber, S. 1976. Change in U.S. women's sex-role attitudes, 1964-1974. American Sociological Review 41: 573-96.

Mott, F.L. 1972. Fertility, life cycle stage and female labor force participation: a retrospective overview. Demography 9: 173-85.

Nye, F.I. 1974. Sociocultural context. In Working Mothers, L.W. Hoffman and F.I. Nye (eds.). San Francisco: Jossey-Bass.

Oppenheimer, V.K. 1970. The Female Labor Force in the United States. Berkeley: University of California, Institute of International Studies.

Parelius, A.P. 1975. Emerging sex-role attitudes, expectations, and strains among college women. Journal of Marriage and the Family 37: 146-53.

Scanzoni, J. 1975. Sex roles, economic factors, and marital solidarity in black and white marriages. Journal of Marriage and the Family 37: 130-44.

Shabecoff, P. 1977. A labor secretary's priorities. New York Times, February 6 (Business and Finance): 1.

Snyder, D. and Hudis, P.M. 1976. Occupational income and the effects of minority competition and segregation: a reanalysis and some new evidence. American Sociological Review 41: 209-34.

Spitze, G. and Spaeth, J.L. 1976. Human capital investments of married female college graduates. Paper presented at the meetings of the American Sociological Association, New York, September.

Suter, L. and Miller, H. 1973. Income differences between men and career women. American Journal of Sociology 78: 962-74.

Sweet, J. 1973. Women in the Labor Force. New York: Seminar Press.

Sweet, J. and Lowe, V. 1974. The employment of mothers of young children: 1970. Mimeographed. Center for Demography and Ecology Working Paper 74-17. University of Wisconsin.

Treiman, D.J. and Terrell, K. 1975. Sex and the process of status attainment: a comparison of working men and women. American Sociological Review 40: 174-200.

Turchi, B.A. 1975. The Demand for Children. Cambridge, Mass.: Ballinger.

Udry, J. 1970. Marital instability by race, sex, education, occupation and income. In The Family Life of Black People, Charles V. Willie (ed.). Columbus, Ohio: Charles E. Merrill.

Waite, L.J. and Stolzenberg, R.M. 1976. Intended childbearing and labor force participation of young women: insights from nonrecursive models. American Sociological Review 41: 235-52.

Waite, L.J. 1977. Projecting female labor force participation from sex-role attitudes. Mimeographed. Department of Sociology, University of Illinois.

Welch, S. 1975. Support among women for the issues of the women's movement. Sociological Quarterly 16: 216-27.

The Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented research unit based in the College of Administrative Science of The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems associated with human resource development, conservation and utilization. The personnel include approximately twenty senior staff members drawn from the disciplines of economics, education, health sciences, industrial relations, management science, psychology, public administration, social work and sociology. This multidisciplinary team is supported by approximately 50 graduate research associates, full-time research assistants, computer programmers and other personnel.

The Center has acquired pre-eminence in the fields of labor market research and manpower planning. The National Longitudinal Surveys of Labor Force Behavior have been the responsibility of the Center since 1965 under continuing support from the United States Department of Labor. Staff have been called upon for human resource planning assistance throughout the world with major studies conducted in Bolivia, Ecuador and Venezuela, and recently the National Science Foundation requested a review of the state of the art in human resource planning. Senior personnel are also engaged in several other areas of research including collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs and the projection of health education and facility needs.

The Center for Human Resource Research has received over one million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, and Health, Education and Welfare; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; and the George Gund Foundation. The breadth of research interests may be seen by examining a few of the present projects.

The largest of the current projects is the National Longitudinal Surveys of Labor Force Behavior. This project involves repeated interviews over a fifteen year period with four groups of the United State population; older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the Center is responsible for data anlysis. To date dozens of research monographs and special reports have been prepared by the staff. Responsibilities also include the preparation and distribution of data tapes for public use. Beginning in 1979, an additional cohort of 12,000 young men and women between the ages of 14 and 21 will be studied on an annual basis for the following five years. Again the Center will provide analysis and public use tapes for this cohort.

The Quality of Working Life Project is another ongoing study operated in conjunction with the cities of Springfield and Columbus, in an attempt to improve both the productivity and the meaningfulness of work for public employees in these two municipalities. Center staff serve as third party advisors, as well as researchers, to explore new techniques for attaining management-worker cooperation.

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A third area of research in which the Center has been active is manpower planning both in the U.S. and in developing countries. A current project for the Ohio Advisory Council for Vocational Education seeks to identify and inventory the highly fragmented institutions and agencies responsible for supplying vocational and technical training in Ohio. These data will subsequently be integrated into a comprehensive model for forecasting the State's supply of vocational and technical skills.

Another focus of research is collective bargaining. In a project for the U.S. Department of Labor, staff members are evaluating several current experiments for "expedited grievance procedures," working with unions and management in a variety of industries. The procedural adequacies, safeguards for due process, cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recent papers have been written for the Joint Economic Committee of Congress, The National Commission for Employment and Unemployment Statistics, The National Commission for Manpower Policy, The White House Conference on the Family, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 9,000 titles which includes a wide range of reference works and current periodicals. Also provided are computer facilities linked with those of the University and staffed by approximately a dozen computer programmers. They serve the needs of in-house researchers and users of the National Longitudinal Survey tapes.

For more information on specific Center activities or for a copy of the Publications List, write: Director, Center for Human Resource Research, Suite 585, 1375 Perry Street, Columbus, Ohio 43201.